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Editorial Comments

The Los Angeles National Convention—Aug. 18, 19 and 20. We suppose a great many bee-keepers, especially all over the Western part of the country, are getting ready to go. It will be a wonderful trip for those of us who live farther east. And those California folks are all ready to welcome the buzzing crowd.

It probably will be the regret of a lifetime to those who could go if they would try, and fail to make the effort. There is still room in the special bee-keepers' car going over the Santa Fe, and leaving Chicago the evening of Aug. 12. If you are going to join that company in the greatest trip a lot of bee-keepers ever took across the continent, let us know quick, and we will reserve a berth for you.

The round-trip rate from Chicago to Los Angeles is \$50, and \$8.00 extra for berth. For the Grand Canyon trip (where we will all spend Sunday, Aug. 16) the extra cost for carfare and berth is \$8.50.

Since our last issue, the following have notified us that they will join the party leaving Chicago on Aug. 12 for Los Angeles:

N. E. France, of Grant Co., Wis.
Geo. S. Church, of Winnebago Co., Wis.
Mr. and Mrs. H. D. Tallady, of Emmett Co., Mich.

Time of Taking Off Sections.—Just when it is best to take off a super of sections is not an easy thing for the novice to decide, and indeed one of considerable experience may sometimes be puzzled about it. If one waits till every section in the super is fully sealed, some of the central sections will be sure to have the cappings darkened, and it is a question between unsealed sections at the outsides and darkened sections at the center.

It is better to be too early than too late, for a few unsealed cells will not hurt the sale as much as the darkening. Take off the super when the four sections at the corners are still incomplete, or even when the entire row on each side lacks a little of being finished. Then fill up a super with these unfinished sections, and return them to the bees to be finished. Do not fill the super entirely with sections that are filled, lacking only the sealing of a few cells, but let the outside sections be such as are only half filled or less. Indeed, it may be well that the four corner sections shall have only foundation in them. Then there will be no temptation to leave the super on till the central sections are darkened, and the outside sections will give a chance for some storing, being returned again for finishing.

Detecting Foul Brood.—On another page of this number will be found a very practical article on foul brood by R. L. Taylor, copied from the Bee-Keepers' Review, which is especially instructive in the matter of detecting the presence of the disease. Read it, whether you have any present interest in such things or not. No telling how soon you may need knowledge about such things, and need it badly.

A Good Cement for fastening the handles of knives, forks, and other things that have become loose, is said in the Australasian Bee-Keeper to be the following: Four parts of resin, one of beeswax, and one of brickdust, melted together.

The Use of Smoke on Bees.—A. J. Alden sends a clipping from Farm and Ranch containing this paragraph from Heddon's "Success in Bee Culture:"

"Take the average colony of blacks or hybrids, have your smoker in good trim, blow smoke across the entrance, and if no honey-flow is on, into the entrance; then noiselessly pry up the cover and pour two or three good puffs of smoke into the top of the hive, when you can handle your frames rapidly. But half smoking such a colony will make perfect terrors. With the gentler bees less smoke is needed, but the method should be the same. This can be done quickly. Smoking the entrance starts the panic, and the smoke on top of the frames completes it, and also gains the complete surrender of the crossbred hybrids."

Mr. Alden's comments, "This is a little different from the accepted rule: 'Never be rough with bees nor fight them.'"

There is really no conflict between the rule and Mr. Heddon's instructions. It will be noticed that he has in mind gentleness of movement, even when dealing with cross bees, for he says to pry up the cover *noiselessly*. Giving smoke may or may not be considered fighting them. No more smoke than is absolutely necessary should ever be used, but with cross bees it is much better to give enough in advance to make sure of subduing them, for once thoroughly aroused, it will take more smoke to control them than if a sufficient amount had been given at the start.

Judgment and no little experience is needed in the use of smoke. Some bees need little or none when conditions are favorable, the weather hot and honey coming in a flood. If a queen is to be found, an overdose of smoke will prevent finding, for when the bees get to running like a flock of sheep you may as well close the hive till another time. In this regard there is no difference in individual colonies. A very little disturbance will set some colonies on a stampede, while others with more disturbance will remain quietly on the combs.

Adding Supers Under or Over.—The practice followed by a large number has been, when giving additional supers, to put the empty super of sections under the others next to the brood-nest, except near the close of the honey-flow, when the empty super is put on top. This practice will probably continue, in spite of the claim by some that better results can be obtained by giving the empty super always on top, and never allowing a colony to have more than two supers at a time.

But there seems to be some tendency to depart from what has been the general practice with regard to the arrangement of the supers tiered up other than the empty one. That practice has been to have the oldest super at the top of the pile, the next in age immediately below the upper. Instead of the continuance of that practice it is likely to be reversed, the empty super being next to the brood-nest, the one next above it being the one nearest completion and so on. This will sooner secure the finishing of the super earliest given, while at the same time the empty super under it will prevent the darkening of the comb in the nearly completed sections.

Bee-Stings That We Do Not Like.—The following is an editorial from Gleanings in Bee-Culture by the younger Root:

If there is any place over my whole body that I do not like to get a sting outside my face it is up my sleeve on my wrist. Ordinarily I never take any precaution about putting on cuffs or extra sleeves that are bee-tight; that is, fitting closely around the wrist. But last week when I went down to the yards (it was just after a rain) the bees were particularly cross. Two or three got up my sleeve and stung me on the wrist. I paid little attention to the matter, although I suffered

considerable pain. Examination showed that one of the stings was right in one of the blood-veins, and another near one of the nerve-centers. The next day the arm seemed to be lame, and what was strange, there were sympathetic pains in the other arm in exactly the same place as in the other. Hereafter I shall wear tight-fitting sleeves, or, better still, long sleeve gloves with the fingers cut off at the ends; and this reminds me that they are used by a very large number of practical bee-keepers. It behooves us all to be careful not to get any more stings than is absolutely necessary, for the effect of the accumulated poison may be serious in its effects in after years, as it was in the case of Langstroth and some others.

And, by the way, should these sleeves be treated with any preparation like linseed oil, paint, or any other substance to render them more sting-proof? We have been sending out for a couple of years special bee gloves that were soaked in linseed oil, but it always seemed to me that the oil would make the sleeve warm, causing undue perspiration to the parts protected. My own notion is that a sleeve made of heavy ducking, not treated at all, would be better than having something that would make the fabric stiff and unwieldy. We should like to get the opinion of our subscribers, as we are thinking of getting up a special bee glove, or sleeve, with the fingers cut off, for a very large class of bee-keepers who are looking for something of just this kind.

The elder Root, unless he has changed his mind, rather scouts at the idea of even wearing a veil. It may be a question whether our good friend, the younger Root, would ever have gone so far away from the traditions of his father as to contemplate the wearing of gloves if he had not been so reckless as to wear such loose wristbands as to allow the entrance of bees. There is no need of that for any purpose, and the ordinary wristband large enough to let the hand through is nothing less than an urgent invitation for bees to enter. And they are not slow to accept the invitation.

Farther than close-fitting wristbands, however, many of the veterans would object to any protection for the hands. The discomfort of wearing gloves on a hot day would to them be greater than that from a few stings that might be received during the course of a day in working with bees of reasonably decent temper.

If gloves must be worn, they are much better to have the tips of the fingers cut off, thus taking away the chief clumsiness of working with gloves. Some, however, especially among the sisters, would object to having even the tips of the fingers bare, their object in wearing gloves being hardly so much to avoid stings as propolis.

Automobiles for Out-Apiaries, in preference to horse-flesh, seem now to be possibilities in the not distant future. There is no question as to their advantage in one respect—they will never get frightened, run away and break things because attacked by cross bees. With horses there is always some anxiety in that regard. The main objection to the use of automobiles at present has relation to expense. Editor Root views that part of the subject hopefully. He says:

Already the operating expense is far below that of a horse. We hear a great deal about expensive repairs, and they are expensive if one does not understand something of machinery. The process of simplifying the auto is going on all the time, and the repair item will grow less. Already there is a very good machine offered at retail for \$275; quite a number at \$550, and a host of them at \$750. The cost of operating a gasoline-vehicle is about a half a cent a mile, of the run-about type. Figure up the mileage of your horse, cost of keeping, including the labor every day, or two or three times a day, whether you use it or not, and see where the figures are. When the automobile stops, the only expense is the interest on the investment, and repairs, and these last may or may not be a large item. It can lie idle six months. My auto is kept in a little room, and sometimes during bad weather it stands for days without any one going near it; and yet it is ready for me almost instantly when I am ready for that.

The price of automobiles has dropped some \$200 or \$300, on runabouts, this year, already. Millions of money are being poured into the industry. It will not be long before Yankee genius will be able to turn out a machine so cheaply that every one can have one who can afford a horse and buggy and a barn. No, throw the barn out of the account. But whether the automobile will be able to go over any roads that a horse and buggy can is doubtful. Good roads and automobiles must go hand in hand. There is no use in buying an automobile unless you can have better roads than where the mud is half-axle-deep.

"Queen-Right Colonies" is what F. Greiner, in the American Bee-Keeper, calls colonies that are all right as to having a laying queen. This is a useful innovation from the German language. The word "queenless" is used with regard to a colony that has no queen, but heretofore we have had no word for its opposite. The new word "queen-right" means more than the opposite of queenless, for it merely means that it would include colonies with virgin queens or with drone-layers. But in one word it expresses the fact that a queen is present and that she is a normal laying queen.

To Stop Robbing, G. Small gives the following in the Australian Bee-Keeper:

At night close up the robbed hive seeing that there is a queen and a good supply of food, then let it remain for three days, open it at night again to let the bees have some fresh air or to feed them, but closing the hive again before the other bees are on the move; by this you keep out all "robbers" which will be seen flying round in dozens with the hive being closed they find they cannot get in to plunder and kill, and will leave the hive entirely master of the field.

This simple but effectual way has been tried by the writer with the robbing in all stages, and according to these stages the longer or shorter time you will require to keep the robbed hive shut up, in some cases three days, six days, or even ten or twelve days are required for treatment to prove successful.

Continued long enough, the plan ought to work well, with any colony having a good queen, but there would be sometimes danger of suffocation. It would be a good deal of trouble to open the hive every evening and then close it again for ten or twelve days, and it would for some be easier to put the colony for that length of time in a cool, dark cellar. But if the colony be thus moved, an empty hive should be put in its place, otherwise the robbers will make a severe assault upon a neighboring colony.

The Honey-Flow and Swarming in Illinois and adjacent States are somewhat unusual. The general rule is that when the bees get to storing heavily they give up swarming, but this year the heavy flow seems only to make them worse. Can any one tell why?

Swarms in Chimneys and Walls of houses are not confined to California this year. Throughout the white clover region of Wisconsin, Illinois, and Indiana, they are unusually common. One correspondent reports five in his vicinity.

Miscellaneous Items

A BEE-KEEPERS' PICNIC will be held by the Southeastern Minnesota Bee-Keepers' Association at Homer, on Aug. 25, 1903. All bee-keepers are invited to be present. It should be made a great day for all the bee-folks in that neighborhood.

THE SISTERS DEPARTMENT in this journal has the following kindly mention by Stenog in *Gleanings in Bee-Culture*:

From a very modest beginning, Miss Emma Wilson has made her department, "Our Bee-Keeping Sisters," one of the best in the "Old Reliable." Miss Wilson's scholars ask a good many practical questions which are ably answered.

EUGENE SECOR, of Winnebago Co., Iowa, has an interesting article on "Some of the Benefits and Pleasures of Bee-Keeping," in the July 15th number of the *Twentieth Century Farmer*. The illustrated original heading used in connection with the article is very attractive indeed. All together it is an attractive as well as instructive contribution, and will doubtless incite many a reader of that excellent farm paper to investigate the habits and work of the busy bees.

MR. WILLIAM McEVoy, foul brood inspector for Ontario, Canada, reports 220 colonies of bees, and hopes before long to increase his apiaries to 1000 colonies. He says he has secured the largest crop of honey this season he has ever had. The inspectorship has kept him from going as largely into bees as he would like to do. There are few as prominent bee-keepers in Canada as Mr. McEvoy. He certainly has done a great work for bee-keeping in the Province of Ontario.

Amerikanische Bienenzucht, by Hans Buschbauer, is a bee-keeper's handbook of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.

The Premiums offered this week are well worth working for. Look at them.

Contributed Articles

Finding Queens—Pollen in Extracting-Combs.

BY C. DAVENPORT.

THOSE who have read what I have written in the past know that for comb honey I use and prefer the black or German bee. And all who have handled black bees know that it is a hard and oftentimes impossible matter to find a queen in a populous colony without straining or running the whole force through zinc. I keep all laying queens clipped and generally go over the hives in the spring before the colonies get very strong. But last spring it was so very cold and unfavorable almost all the time that I disliked to open the hives or disturb the bees as much as would be necessary to find the queens. When I did start in at this work most of them were fairly strong, and as soon as I opened a hive and began to handle the frames the bees would begin to boil up over the sides of the hive or collect or hang in bunches on the bottom-bars of the frames, and it seemed impossible to find a queen without the use of zinc. I would attach entrance-guards to the hives, then shake all the bees on the ground in front, and after most of them had crawled through the zinc the queen could be found among the few outside. But for some reason this method did not work well this season. The bees seemed loth to crawl through the zinc and in some cases a large part of them would collect around or under the hives and stay there all night.

So I devised or studied up another plan by which a queen can be found so much quicker, that I am taking space to describe it. It may be old to some, but I do not remember ever seeing it described. And, no matter how strong a colony is, the queen can by this method be very quickly found; and the plan will, I have since found, work equally well with a swarm if it is for any reason desired to find their queen.

I took an empty hive-body and over the bottom tacked or nailed an all-zinc queen-excluding honey-board. A tight bottom was nailed on another empty hive-body and the outfit was complete.

The empty hive with the tight bottom was placed on the ground in front of a colony and over it I would place the other body on which the zinc was nailed. Now, if I have made myself understood, it will be seen that we have two empty hive-bodies with a sheet of zinc between the two, placed in front or beside a colony whose queen it is desired to find.

Taking out the first frame it is looked over for the queen and if she is not found the frame and adhering bees are hung or placed in the empty hive-bodies. This is repeated with all the frames unless the queen is found before. We will suppose, which is usually the case with me, she is not. If the colony is very strong and becomes much excited, a large number of bees will be running around on the bottom-board of the now empty hive and collected on the inside. The hive is now quickly picked up and set over the one containing the frames, a sharp blow on each side rolls what bees are adhering to it down among the frames, and if there are so many bees on the bottom-board that the queen might be among them without being easily discovered it is held over the frames and the bees jarred off among them.

The bottom-board and hive are now placed back on their stand. With the left hand one of the outside frames is raised up two or three inches, then with the closed right hand the top-bar is struck a sharp, quick blow near its center. One blow of the right kind usually clears a frame so that a queen can be readily seen if she still adheres to it. As fast as the frames are cleared of bees they are placed back in the hive proper, on which the cover is now placed.

When I thought about this plan I was afraid that the bees would, instead of crawling down through the zinc, crawl up over the side. But in practice the most of them go right down through the zinc so that the queen is readily seen.

After the queen was clipped I would let her run in at the entrance, and then dump the bees down in front and they would go in sooner, for, of course, with this method, they have no zinc to go through at the entrance.

A neighbor bee-keeper near swarming-time offered to make quite a wager with me that I could not by this plan find the queen in one of his strong colonies in five minutes. In a trifle less than three I had found and clipped her, placed the frames back in the hive and dumped the bees down in front. But in this case I did not look the frames over to find her. Some might, and in fact I had some fear that it might, injure laying queens when jarred down on a sheet of zinc in this manner, but out of over 150 so treated not one was injured or lost, and they went right on laying at their usual rate. By the entrance-guard plan, when a queen stayed out over night before being found and clipped, it would in some cases be a number of days before she would resume laying as well as before.

POLLEN IN EXTRACTING-COMBS.

During the last few years I have produced considerable extracted honey, and one great drawback about this branch of our pursuit that I have to contend with is pollen in the extracting-combs. Last spring I had about 500 full-depth combs that were filled nearly solid full of pollen. The method that has been described, of soaking such combs in water until the pollen can be thrown out with the extractor, is an utter failure, so far as such pollen as is gathered here is concerned. I gave the plan a most thorough trial last spring in all kinds of variations. Some combs I soaked for a short time, some for a few days, and some for over two weeks, but in no case, where the cells were full or nearly so, did it soften or loosen enough so that it could be thrown out with the extractor. Where there was but a small amount in a cell it would work all right. Some of these combs I soaked in water and put them through the extractor three times. Of course this removed some of it, but the larger part still remained in the combs, and I found that combs soaked in water soured and molded badly in spite of all I could do to dry them.

The plan of giving these combs containing bee-bread to the bees in order to have them use it up will not do here, because, as a rule, there is too much of it gathered all through the season. The only way I know of to overcome or get rid of this, as it might be called, surplus pollen is to shave or cut it out of the comb. I lay a comb down on a board that just fits inside the frame. Then with the extracting knife I cut or shave the comb, pollen, and all down to $\frac{1}{2}$ or $\frac{3}{4}$ of its original thickness. These combs are then placed over strong colonies some time before the flow commences, and the bees will usually dig out and throw away what pollen is left before building out the comb again.

Southern Minnesota.



A Protest Against Unripe Extracted Honey.

BY R. A. BURNETT.

IN a recent number Mr. A. I. Root, in one of his Home articles, spoke of a bee-keeper in Northern Michigan who sold her honey in a perfectly raw state to a confectioner, and that both the buyer and seller of said honey seemed to be well pleased with their operations. "The producer sold a much larger quantity of honey from each colony of bees by taking it out of the combs before it was sealed than if it had been sealed and allowed to ripen before extracting."

Now, if there is any one thing that is more injurious than another to the sale of extracted honey, it is unripe or improperly cured honey. I do not know that I have read anything in a long time which annoyed me more than the publicity given to that method of obtaining a large quantity of honey.

I have for many years sold honey to manufacturers; but where they got uncured honey it had the effect of reducing their consumption in the near future, as it did not give satisfaction in the product of which it was a component.

I will take the liberty of citing a most striking example of marketing honey in a green state. Certain bee-keepers in the main buckwheat sections of New York, in recent years, got immense returns from their bees by taking off the combs before the honey had been sealed, or very soon thereafter. Some of them were called "Lightning Operators." Their honey was sold on the reputation that buckwheat honey had made for itself, that of being a good article for baking purposes; but after two or three years of disappointment with buckwheat honey (that they got hold of) these manufacturers finally determined that they would use no more buckwheat honey, for of late it had been very unsatisfactory in many instances. The result is, that for the

past two or three years these largest of consumers will not have anything to do with honey that has any symptom of buckwheat about it; and as its use for other purposes is very limited we have great difficulty in disposing of it; and when we do it is at a low price.

I am firmly of the opinion that, had it not been for the greed of these bee-keepers, buckwheat honey to-day would be in as great demand as it was ten and twenty years ago; for at that time it was considered one of the best kinds of honey for baking purposes.

Some mention has been made of late concerning Cuban honey, or the honey of the West Indies, which honey has also been largely used for baking. If these tactics of marketing the unripe product are followed they will soon bring the product of that section into such disrepute that honey from the islands will be shunned just as buckwheat is in the United States at present writing. Cook Co., Ill.

[Mr. Burnett is entirely right, and we (A. I. R. and myself) wish to endorse his protest from beginning to end. Mr. Root senior only meant to refer to what had been done by one bee-keeper in Michigan; but it is apparent the practice should be condemned just as vigorously as actual adulterating, for the one leads almost to as serious consequences as the other. It is well known to the writer that some bee-keepers in York State have been careless about putting out unripe buckwheat honey; they supposed that so long as it was used for manufacturing purposes no harm would result; but if they could see some of the protests I have seen, they would let the honey fully ripen in the combs before extracting. It is true that the market for York State buckwheat extracted has been injured almost beyond repair. In saying this I do not mean to imply that all buckwheat from that section has been unripe.—ED.]—Gleanings in Bee-Culture.



Foul Brood—How to Detect It, Hold It in Check, and Finally Get Rid of It With Slight Loss.

BY R. L. TAYLOR.

"IF you had an apiary of 200 colonies with cases of foul brood scattered through it, how would you manage throughout the entire season to get rid of the disease, or to keep it in check?" the editor asks me.

In the first place I would avoid, as far as possible, getting into a panic. Foul brood is bad enough, to be sure, and its cure entails considerable labor and loss, but it is, fortunately, not without a remedy. I should try to preserve my equanimity, and thoroughly mature plans for effecting a cure; for there must be no halting while taking any step in the operation.

CHARACTERISTICS OF THE DISEASE.

The first point that claims serious attention is the distinguishing of the diseased colonies from the healthy ones. This is a matter that is attended with more or less difficulty, at any season of the year, but with more at some seasons than others, except in cases where the disease has made considerable progress. In these cases, even one with no experience, need have no hesitancy in coming to a correct decision. All the ear-marks of the malady are but too evident: the weakness of the colony, listlessness of the bees, the repellent odor, the ragged cappings of the brood, the shapeless dead brood, and the general unprosperous appearance of the combs and the honey, make the diagnosis easy.

But if the colony be yet strong, and but slightly affected with the malady, the case is quite different. If it be in the fall, after breeding has ceased, or in the spring before it has begun, the bees, owing to the strength of the colony, have almost, if not entirely, removed the cappings from the diseased cells, the odor is faint, if not practically absent, and the colony appears prosperous, so that even the adept, on a hasty examination, is liable to be deceived; and one without experience is sure to be. The diagnosis of those of this sort is the most difficult of all, and the difficulty increases with the slightness of the affection. How, then, may the disease be discovered in such cases? Let us go to one of the colonies badly diseased, and take from the center of the brood-nest a comb—the newer it is the better—in which there has been brood during the past breeding season. Now, we will hold it in a good light, so that the light falls upon the comb not quite perpendicularly, but at an angle of 70 or 80 degrees from the top of the comb; now we look down at an angle of about 40 degrees from the top of the comb into the cells, and what do

we see? In many of the uncapped cells on their lower sides—not bottoms—we see brownish, not grayish black, scales nearly as wide as the cells, and reaching nearly to the opening of the cells. These scales are the remains of brood destroyed by foul brood.

We will spend a little time in looking at them to fix in our minds the image of their forms; will examine the other side of the comb, and even take out one or two more to look at. If the colony is weak, many of the affected cells retain a fraction, or the whole, of their cappings, but, in any case, there are many with no capping. If the colony has been afflicted with bowel trouble, one, on a careless examination, might take the scales to be dried excrement, once half liquid, but we look carefully and see that they are always in the same position, and of the same size and shape, which would not be the case if they were excrement.

We will now return to the colony but little affected, and take out and examine, one after another, the combs in which brood has been reared during the past season. Now we see the scales at a glance. There may be but half a dozen in some of the combs, and in some none at all. It is safe for us to pronounce the colony diseased, and to treat it accordingly, but this test is not quite so certain as one we shall be able to apply when brood-rearing has been under way for some time, and settled warm weather has come. I say it is not quite as certain, for the sole reason that in one or two cases I have known the scales of brood dead from other causes than foul brood, though, in those cases, I think the scales were all finally removed by the bees.

We will now go forward to apple-bloom, or to the opening of white clover. If the colonies we visited earlier have been left undisturbed, we will examine them again in the same order as before. Providing ourselves with some toothpicks, or bits of straw, we go to the sicker colony of the two for its thorough examination, and proceed with the greatest deliberation, for we are trying to learn to distinguish foul brood with absolute certainty. Having an eye out continually for the appearance of robbers, which must be taken as a signal for closing the hive, and postponing further examination, we raise the cover. If we are on the leeward side of the hive we may catch a faint whiff of the ill odor that proceeds from the diseased brood, as the cover is raised, but we make sure of it by bending over the hive with face near the top of the combs, but we do not unnecessarily prolong this part of the examination, for the scent is by no means pleasant—nor worse than that of colonies badly affected with diarrhea, perhaps; not so bad, but quite different—something like that of a poor quality of glue as it is warming for use, or like that of a dead animal after it has lain and decayed and dried for weeks in the open air. With a little practice we shall not be liable to mistake the odor, and we shall find it of considerable assistance in discovering the disease to the extent that often the necessity of lifting combs will be precluded.

Now, we will take out two or three combs from the center of the brood-nest, and look for the peculiarities in their appearance or contents. At the first glance, one who takes delight in seeing his bees prospering would have a feeling of depression come over him without realizing the reason for it. But we easily discover the reason. There is plainly a general appearance of shiftlessness, slovenliness and squalor. The combs are too dark, and without the natural, clean look. The bees do not cling well to the brood, but slink away; the cappings of the brood do not have the pretty, clean, slightly convex appearance, but some are flat, or even concave; many are perforated, some slightly, others in a greater degree, and are more or less ragged.

Now we will look into the cells. Some, not capped, contain larvæ of a clear, pearly luster, others have nicely rounded cappings—all these are as yet healthy. In the cells with sunken, perforated and ragged cappings, and in many of those not capped at all, we see larvæ of a brownish color of various shades from slightly yellow sometimes to the prevailing hue of a dark, dirty brown. These are all dead. Did they die of foul brood? We can surely tell by trying them with our toothpicks. We open some of the sunken and the perforated cells and insert the sharp end of the toothpick into the remains of the larvæ the different cells contain. The skin of each one goes to pieces with a slight touch, and a slight turn converts it into a homogeneous, glue-like mass of the color of coffee when prepared with milk for drinking; and on withdrawing the toothpick the matter is drawn out in a string a half inch, more or less. It is foul brood, and the toothpick is the supreme test. There is no foul brood without viscosity, and no viscosity without foul brood.

NECESSITY FOR CAUTION WHEN EXAMINING INFECTED COLONIES.

The toothpick, as used, we must dispose of with care to prevent the contamination of healthy bees. We may burn

them in the smoker; and it is an additional safeguard to have always at hand a dish containing a weak solution of carbolic acid in which to wash tools and hands before manipulating a colony that may prove to be healthy.

Now, we must go and examine the colony but slightly affected, for the detection of the disease in such a one requires some patience and care. On opening the hive, if we have a "good nose," we may, on applying it to the top of the combs just over the center of the brood-nest, possibly distinguish slightly the characteristic odor of foul brood, but very likely we may not be able to do so. We then remove combs from the center of the brood-nest. On a cursory view everything looks prosperous—the colony is strong, the brood is compact and abundant, and of a general normal appearance, and the bees are working energetically. But if we look carefully we may see here and there a cell the capping of which has lost its lively appearance. It is a little too dark, and is slightly flattened. We must have recourse to our toothpick. One breaks the suspicious capping. Yes, the larva is dead and discolored. The toothpick touches it with a slight turn and is withdrawn, bringing the stringy tell-tale matter with it. Other similar cells are found. There is no question but that it is foul brood.

HOW TO PREVENT THE DISSEMINATION OF THE DISEASE.

Now that it is established that foul brood has a foothold in the apiary we must make every effort to prevent its farther dissemination. It might be asked, Why not do that by curing all the diseased colonies? The reply is that the periods of time when that can be done quickly and safely are limited, both in number and extent. The temperature must be warm enough for comb-building, and security against robber-bees must be had for the necessary operations, so that a time of waiting of greater or less length is pretty sure to intervene, hence the necessity for taking precautionary measures. And first, and most important, is the guarding against robbing. We must make a weak colony secure against the possibility of being attacked. The weak colonies are the ones by far the most likely to be diseased, so we will make sure not only that the entrances are small enough for successful defence, but also that the bees have sufficient spirit to make the defence. We will sacrifice, without hesitation, any infected colony that will not fight.

WHAT MAY BE DONE WITH MEDICATED SYRUP.

If the character of the time is such that the bees will take syrup, this may be taken advantage of by feeding diseased colonies a quart or two of medicated syrup made by mixing one ounce of salicylic acid in sufficient alcohol to dissolve it, in about 25 quarts of a not too thick syrup or honey. This will be found very helpful; and we will not omit to avail ourselves of it as fast as the diseased colonies are discovered. I have found that this medicated food stops the spread of the disease in the hive, and, no doubt, on stronger grounds, prevents the spread of the contagion to other hives. If the time be early spring, as we find colonies which were badly diseased the previous fall, before giving the food we will remove from each some of the combs which contain the dead larvæ, and leave the bees only the ones which have few or none. These will prove sufficient until a cure can be effected; and the withdrawing of the combs with the greatest amount of affection will be a very decided advantage to the colony.

UNITING WEAK COLONIES.

We are now supposed to have critically examined the entire apiary, and distinguished each diseased colony by a prominent permanent mark, and to have given each a supply of medicated syrup. We will now keep each supplied with this syrup until the flowers yield fairly well. In attending to this we shall find some of the colonies that are taking but little or none of the food; these we will unite either with each other, or with others that are stronger, putting two or more together as rapidly as it can be safely done. I say safely done, because two colonies standing some distance apart among healthy colonies may not be brought close together at one movement, for that would be likely to send some of the bees into healthy colonies. They must be brought together gradually so that all the bees will be brought along. We will make the united colonies strong by putting a sufficient number together to make them so, for weak ones will prove to be of little if any value.

A CAUTION REGARDING THE USE OF COMBS FROM COLONIES THAT HAVE DIED.

There is one other preliminary matter that must be attended to, and that is the examination of the combs of colonies that have died during the winter. Diseased colonies are particularly liable to perish, and a larger proportion of the dead ones will no doubt be found to be of that class. The

status of each is to be determined in the same manner that we determined the condition of the colonies examined for foul brood early in the spring before brood-rearing had made much progress; that is, by looking for the scale-like remains of the larvæ which perished the previous year.

It will be understood, of course, that all diseased combs, that is, all combs from diseased colonies, bits of comb and honey, must be kept at all times where no prying bee can by any chance get access to them. These are the readiest means of the spread of the disease. The honey may be extracted from combs, containing sufficient to make it worth while, boiled well for at least 15 minutes, then medicated and used for feeding; but unless one has conveniences for keeping all combs and honey safe, they should be burned up at once. However, with care, there is no good reason why the wax from the combs, and most of the honey, should not be saved. Every one must consider his own conditions to determine how he can best dispose of them without incurring risk.

GETTING RID OF THE DISEASE.

We now come to the final and indispensable operation for effecting a cure, and that consists simply in transferring the bees from their own combs to hives furnished with frames of foundation or frames with starters. I have not found it necessary to disinfect the hives containing diseased colonies, so, if found more convenient, the combs may be taken out, the bees brushed and shaken in front of the hive, and the hive furnished with frames of foundation.

AT WHAT SEASON TO DO THE WORK.

But at what time is this to be done, and what disposal is to be made of the brood?

The operation may be successfully performed at any time during warm weather, if only sufficient allowance of time is made to enable the bees to complete their combs before the cool weather of the fall comes on. May, June and July are the best months, and of these about the beginning of the white-clover flow would be the most favorable time of the year for beginning the work. This is so, both because it is the best time for the bees to build up without any care, as well as because it is the time when robber-bees are least likely to be troublesome.

At this timely season let us go into the apiary with the necessary hives, ready furnished, to undertake the work. We find many that were but slightly diseased strong and almost in condition to cast a natural swarm. Each one of this class is moved a little aside and one of the prepared hives is put in the place of each. Now, from each one take out the combs with the bees and shake the bees off in front of the new hive, making sure that the queen goes with them, until we have a driven swarm, leaving sufficient in the old hive to care for the brood. Now we have a driven swarm from each one, and the old hives with the brood. Within a week or ten days we will see that each of the latter has given it a good young queen, or a good ripe queen-cell, and in 21 days we will take away all the old combs and replace them with frames containing foundation or starters. This disposes of this class, and will surely effect a cure. It would be more than useless to give them another set of frames and another shaking out.

THE TREATMENT OF WEAK COLONIES.

Now we go back to the weaker class. These we will take in pairs. We first select the first pair, set one of them aside and put a new hive in its place and shake out the bees as in the former case, only get about all of the bees and the queen out. Now we put the old hive with the brood in the place of the other one of the pair, and bring that other one and shake out the bees and queen in like manner in front of the new hive, then take back the old hive and unite it with the one already on its stand; thus getting from the pair one new one with the bees and the two queens, and one united old one with the brood, that will be wanting a queen in a few days, and a new set of frames in three weeks, as in the former case. The rest are to be treated in like manner.

A good part of the success of this plan is owing to the medicated food given during all the forepart of the season. Without that the colonies would have been in comparatively poor condition, which would have entailed an increase of care and labor.

The cure may be effected during any part of the three months mentioned, or even in August, but the giving of medicated food must be resorted to unless the field is yielding an abundance for comb-building.

Sometimes the brood from several colonies may be given to a single one, and that one treated later.

Without feeding during a dearth, absconding is pretty sure to take place.—Bee-Keepers' Review.

Lapeer Co., Mich.

Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

Don't be "Caught Napping" on Supplies.

I trust that none of the bee-keeping sisters have been caught napping without sufficient supplies. I have really felt sorry for the number of bee-keepers who have come to us this summer for sections and foundation, and we could not help them out.

An Experience with Bees.

I have been too busy to write. I have been cleaning out my hives and getting supers ready for use.

I commenced keeping bees four years ago. I bought 1 colony and hive, 2 supers, and sections enough to fill both supers twice, and got 48 sections capped and 10 partly filled. I cut out the queen-cells and did not let them swarm. In the fall I bought three colonies; one was weak and I had to feed it.

I put the four colonies in two small hives, and spread a piece of old carpet on each hive. They could go out and in when they chose.

When I went to take them out, in the spring, I found the weak colony dead, and one of the others almost dead. The weak one had frozen and the other had been too warm, as their hive was wet and mouldy.

I bought three colonies the next year, and I have let them increase two swarms in the three or four years, so I have 16 colonies now.

We have had a cold, wet spring, freezing fruit-blossoms, so I have had to feed the bees, but the alfalfa and sweet clover will soon be in bloom. I am keeping my bees strong by feeding, so they will be ready to work when there is a honey-flow.

I do most of the work with the bees, as my husband has enough to do on the farm. When I need help my husband or some of the children help me. I have six children, a boy 19, one 11, and one 8, one girl 17, one 15, and one 4.

We keep horses, cattle, hogs, turkeys and chickens, so there is always plenty of work for all. I have 70 chickens, and 30 young turkeys.

There has been a hail-storm that damaged the crops from 25 to 35 percent for about 10 or 15 miles square.

I subscribed for the Bee Journal when I bought my first colony. I could not get along without it.

I got 800 pounds of comb honey last year from 9 colonies, spring count.

Ford Co., Kans., June 1.

MRS. BEN FERGUSON.

A Sister's Work in Colorado.

I think I might be called a bee-keeping sister, although on rather a small scale, as I have only 28 colonies of bees.

Eight years ago, on coming to this valley—Grand Valley, in western Colorado—my husband bought two colonies of bees and gave them to me to do as I might.

The first two or three years they increased very fast, but for the last three years they have nearly forgotten to swarm, and as I was very anxious to have more bees, last year (about the middle of May) I divided my colonies, making 37 out of 21, trusting to the bees to rear more queens, but only eight succeeded in rearing good queens.

My dividing them weakened them so much that they did not get built up so as to store any honey from the first cutting of alfalfa (and that was the strongest flow of honey for the season), but from about the middle of July until Sept. 20 they stored 59 cases of very nice honey.

I was very much discouraged about my bees building us so slowly after dividing them. I thought perhaps I had ruined the most of them. I made up my mind to inform myself a little better on bee-keeping so I asked one of my neighbors (an old bee-keeper), which bee-paper he thought would be the best for me to take. He recommended the American Bee Journal, which I subscribed for in October. I also got Cook's "Manual of the Apiary." I am very well

pleased with the paper every week. When I get it, the first thing I do is to turn to the "Sisters" department.

I do all the work with my bees, put together the hives, supers and shipping-cases. I often wish that I had a hundred colonies; I think I could care for them all. I enjoy working with them so much.

This has been a cold, backward spring.

Perhaps later on I will tell you how I dress to protect myself while working with the bees.

Mesa Co., Colo., May 27.

ALMA TRAVIS.

So your bees have almost forgotten how to swarm. My! I almost feel like envying you. Our bees have surely not forgotten, for they seem to think of nothing else, judging from the way they persist in trying to swarm. Shaken swarms, natural swarms—every thing swarms. All treatment and rules fail to prevent swarming this year. But with it all we are getting lots of honey, so we must take the bitter with the sweet, and we are surely thankful for the sweet.

Don't forget to tell us about that bee-dress later on.

Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.
By E. E. HASTY, Sta. B Rural, Toledo, Ohio.

MOIST HEAT IN QUEEN-REARING.

The matter of moist heat to rear queens in is one certainly worth grubbing over. Very likely queens reared in a dry atmosphere would fall short, as Arthur C. Miller intimates. But the humidity of the hive, although not entirely out of our control, is a little that way. Lots of bees, all carrying nectar, and lots of comb with nectar in the open cells, is the price of humidity. The humidity of a nucleus will be pretty sure to vary with the outside weather, it seems to me. Queen-breeder might step in, but I don't believe he actually will. Page 381.

BEES MIXING VARIOUS NECTARS.

Sometimes—in hot, dry weather and very poor flow, basswood honey is almost too strong for even a lover of the basswood flavor to approve. As it is quite a blow to us to have to set catnip honey as unfit for any use, we kind o'want to hide in some similar refuge. Was not the yield poor at Mr. Crane's; and might not the honey be endurable another time? Slim outlook. Both the wet weather and the amount brought in seem to point right the other way. We'll play that those bees found something else much worse than catnip, and mixed the kinds. Anything that yields honey when the usual sources fail, and bees forage desperately everywhere, is liable to more or less of that kind of misjudgment. Page 382.

SAW ONLY PICTURE-SNAKES.

Of course that's not what the Editor saw the morning after the Fourth—those snakes on the title of No. 25. I can see bees in 'most everything, but fail to see 'em just at that spot. Not kicking, however. A bee-paper that is mostly something else is rather disgusting, but an occasional digression entirely off the field, I rather like.

GETTING PEOPLE TO USE HONEY.

Likely Mr. Whitney, as per page 287, and sound in the main. Mixing of syrups should be done at home, evidently. Interest in bees is not hard to stir up among people who have previously known nothing of them; and when stirred up it is a very lively interest, second cousin to bee-fever. At that point the local editor will publish things cheerfully—and sales will boom. But don't try to load down the latter fellow with matter manifestly of the free-advertising sort. If you hand him matter let it be instructive—just what the people, editor included, are wanting to hear. And, say! if you have worked this plan profitably, get a wedge in your own heart, and put in a small paid advertisement in the paper. Do this as a matter of right feelings all 'round, even if the ad can do no more than has already been done.

But common people won't buy a 12-cent sweet for their every-day pancake use. Either give that up or offer them extracted honey at 7 cents.

Shall Association money be used to advertise honey in

the leading papers? I'm thinking the supply of money would run out before much result had been realized.

Of course our Editor is right, that the supply of honey would fall short if the whole people were enlightened and gently stirred on the subject. We have heard that many times, to be sure, but still we don't travel on it as much as we might.

ALFALFA COMING EAST.

Honey from alfalfa at Fond du Lac. Not a little merely, but honey by the thousand pounds. That's surely well to the north, and at least not a-west the great river. It's coming. "Spring! spring! spring! soon be here!" is what the little bird would say. Page 395.

THE SOLAR WAX-EXTRACTOR.

Yes, indeed, Mr. Doolittle putting into the solar extractor material that will absorb all its own wax when melted, and a lot more from surrounding stuff—well, the boy who does that the second time should call himself one of the flats. Page 398.

A LONG-CAGED QUEEN.

Perhaps I'm wrong, but my idea of the thing is that injury (if any) by suddenly compelling a laying queen to cease laying would all come in the first week. Twelve weeks no worse than six so far as the laying matter is concerned. As to the wearing grind of improvement there would be a good deal of difference; and twelve weeks of caging with the queen still unharmed is quite a record. Page 403.

ANOTHER TWIST ON THAT TWISTING COVER.

I see our mutual friend wants to prevent domestic hair-pulling by arbitrating the twisted cover. Hardly looks right to arbitrate the laws of mathematics—but I guess we may thank him for the main thing he called attention to. If the wood has a twisty disposition in its soul a cover rigidly cleated at both ends will still manage to twist some. The mathematical laws pertaining to a circle and its tangent do not apply when the ends are kept straight lines. Page 403.

Dr. Miller's Answers

Send Questions either to the office of the American Bee Journal, or to Dr. C. C. Miller, Marengo, Ill.

Combs of Honey from Diseased Colonies.

What shall I do with 30 frames filled with honey, pollen and brood, taken from colonies affected with disease, probably black brood? MASS.

ANSWER.—I think I should try treating them with formalin.

Queen-Bees of the Brown or German Race.

Do you know where I can get a queen of the brown or German race, undoubtedly pure and purely mated?

ANSWER.—No, I don't. Fifty years ago they occupied the land as the common bee of the country, and in spite of all efforts to drive them out it is probably a hard thing to find a spot in all the country where traces of black blood may not be found in the vicinity now. But to find pure stock is another matter. Does any one know of any undoubtedly pure stock of the kind anywhere?

Getting Rid of Flies and Mosquitoes.

1. Please tell me what effect cobalt has on flies, and how to use it?
2. Is it offensive or dangerous?
3. What preparation is best to use?
4. What kind of plant will be offensive to mosquitoes? and is there any drug which, placed in the room, will drive them away, or prevent them from coming in.

MARYLAND.

ANSWER.—The only way I have seen cobalt used for flies was to sprinkle it on a plate and wet it with sweetened

water. The flies would eat it and shortly die. It is a poison, and care should be taken not to allow children to get hold of it, but there is nothing offensive about it otherwise. I know of no particular preparation, just ask for cobalt.

I have some doubt whether there is any plant or drug that would keep the mosquitoes out without being offensive to the occupants of the room.

Using a Division-Board or Not.

In my 8-frame hives, by crowding all together, there is a space at one side wide enough to put in a division-board. Now, in hot weather, would you keep in the board, or divide the distance up among the frames, with the board taken out? NEBRASKA.

ANSWER.—Keep the board there all the time. If you leave it out in hot weather, the bees will build out the combs so you cannot space them close again. Besides, there is no reason for given more space in summer, and that board or dummy is a good thing to make it easier for you to take out the frames. I wouldn't do without a dummy in each hive for a good deal of money.

An Experience in Transferring—Feeding Bees.

I have an apiary of about 90 colonies and have been handling bees three or four years for the pleasure I found in it. I commenced with box-gums, hollow logs, etc., but principally soap-boxes of all shapes and sizes. After getting the "A B C of Bee-Culture," Prof. Cook's and Langstroth Revised, Miller's "A Year Among the Bees," and having had the American Bee Journal to read for the past three years, I came to the conclusion that there was but one right way to handle bees—and with movable frames was the way. So my enthusiasm led me on to get a suitable hive and frames. I at last settled upon the 8-frame hive. And then came the task of transferring. Without asking any questions through the Bee Journal, I scanned all the back numbers and found what Dr. Miller had to say to the beginners on that subject, and put that with my own common sense and went to work.

In the first place, Dr. Miller says the best time is during fruit-bloom, when the combs are lightest; but here it was in July (the 4th), I was to undertake this intricate task, when the combs were supposed to be full. However, I thought I would try one colony, anyway, and if I make a success of it I might try some more. So I got ready by lighting the smoker, got a lot of string, a good knife and a table to work on. I followed Dr. Miller's plan pretty nearly through. I smoked the bees all in this hive and then lifted it off the stand, and then instead of having a "decoy" box I took the super off and used it for a "decoy," to catch the flying bees. I had to pry the box-hive open, as the bottoms were nailed hard and fast to the hive. When I got the bottom loose I turned the hive upside down and placed the forcing box over it and commenced drumming. Very soon I had the greater part of the bees up into it. Then I took the forcing box off and ran the remaining bees out by smoke into the super, now on the old stand. When all were out I removed the super and put the forcing-box on the bottom-board on the old stand and placed the super on top. Then I closed the entrance to a very small space to prevent suspicious robber-bees investigating what was going on. When all was through, and ready, I took the old hive to the honey-house some distance away to make the transfer of the combs. The old box-gun had only top-slats for frames, without side or bottom-bars, which left the comb hanging to the top-bar and to the sides of the hive. Generally what I transferred had tolerably straight combs for box-hives. I found very little honey in them, and, finding this the case, concluded that no better time could be to transfer than when the combs were the most free of honey.

So I then proceeded to cut out the combs, which were 12 inches long by 10 inches deep, and fastened them into standard Langstroth frames. The combs came very near fitting in width. I had to trim off a little of the bottom, which did not injure the combs in the least. After all were in I carried the hive carefully back to the old stand and lifted the old box and super off and put the new hive with the transferred combs on the stand, and right here my plan began to differ from Dr. Miller's. He says: Place the hive on the old stand and empty the bees out in front and let them run in. But I differ from him in this respect, for reasons which I shall give after I am through explaining my method of transferring. Instead of emptying them out in

front of the hives I gently raise up the box, with the bees in it, and place it over the hive, and then brush them down gently, or otherwise; being filled with honey, they would remain quiet up in this box, no telling how long, and robber-bees would take possession below and on the outside of the entrance.

After I get the bees all brushed down and in the hive I either put the super over them or run the bees out of it down in the hive and take it (the super) to the honey-house to have its combs cut out, as I did the brood-chamber. Where I found the honey in the old super frames (14 inches by 4½ inches) too thick and crooked, and too full of honey to stand tying with strings, I just uncapped them and placed them above the brood-chamber with an empty super on and let the bees carry the honey down to the brood-chamber where it is needed. As I just remarked, I found but little. This placing these ugly super frames over the brood-chamber to be fed back to the bees can be done any time later on, and is better to be deferred for a few days in order to give the bees lately transferred time to stick their combs and get everything in good house-keeping shape.

Another reason for deferring it is, all this manipulating creates a great stir and excitement among the bees, and might cause robbing, and the more honey handled the greater the honey odor to attract their attention.

My reason for not emptying the bees out on a sheet to be run in as Dr. Miller directs is this: In their present condition, they being full of honey are sluggish, and already demoralized, and there being a great many young bees, many of them lately hatched out, this emptying them out would lose some of them, and other strange bees would be around investigating and secure a taste of honey, which would very soon start a first-class case of robbing.

The bees run in by Dr. Miller's plan would hardly resist the robber-bees, until they felt more at home, and had gotten more accustomed to the late changes of a new hive and a new bottom-board, and all the new house complete with their combs, all looking as if a cyclone had passed through them. But if gently brushed down they find themselves at home and seem to accept the change of things more readily.

My bees have gathered literally nothing since the first of June, as it has been raining every since, and I am preparing to go to feeding very soon; I shall have to give them back all the honey extracted up to the first of June.

I now wish to ask some questions that will not only in-

terest me but may be of great advantage to other beginners. In regard to feeding them crooked and unshapely combs of sealed honey by placing the frames or combs just over the brood-frames and placing an empty super over them—

1. Will the bees carry the honey down and store it in the brood-chamber?

2. In case a super with these transferred frames of comb being on, and old combs of honey are placed on top of the super frames, will the bees store the honey in the super, or carry it down to the brood-chamber?

3. In case a temporary flow of honey comes on any time soon, and the bees having plenty of comb on hand, would the flow cause them to undertake building new comb, or would they use the old comb all up first to deposit their gathered nectar or honey fed to them?

4. Which do you consider in my case the best plan to feed the colonies I have that are short of stores, in order to carry them through the winter coming on?

5. When is the best time to feed, and how much at one time? How much in the aggregate to carry an ordinary colony through?

6. If bees are fed after a spell of rest with no nectar coming in for some time, will the feeding cause the queen to lay more vigorously and the bees to prepare more comb for the bees to lay in? Or, in other words, what effect does feeding have during such a spell?

MISSISSIPPI.

ANSWERS.—1. Generally not at this time of the year; nor in general at any time unless the brood-chamber is quite empty of stores.

2. Most likely neither. If they move it at all, it will be into the brood-chamber.

3. They would first fill the old comb, unless too inconvenient of success.

4. and 5. Use Miller feeders or the crock-and-plate plan; feed granulated sugar and water, half and half, no need to heat it; feed large quantity as fast as the bees will take it till you have fed each about 22 pounds of sugar. Feeding such a large proportion of water gives the bees a chance to prepare the food more like their natural stores, but it must be fed early enough so they will have plenty of time to ripen it, perhaps in September in Mississippi. Of course you will figure a little on whether or not they will gather from any late sources.

6. If thin feed be given daily for some days, it will have a tendency to start laying, although late in the season it is difficult to start laying after it has stopped.

QUEENS!

Golden and Leather-Colored Italian, warranted to give satisfaction—those are the kind reared by **QUIRIN-THE-QUEEN-BREEDER**. Our business was established in 1888. Our stock originated from the best and highest-priced long-tongued red clover breeders in the U. S. We rear as many, and perhaps more, queens than any other breeder in the North. Price of queens after July 1st: Large Select, 75c each; six for \$4; Tested Stock, \$1 each; six for \$5; Selected Tested, \$1.50 each; Breeders, \$3 each. Two-frame Nuclei (no queen) \$2 each. All Queens are warranted pure.

Special low price on queens in lots of 25 to 100. All queens are mailed promptly, as we keep 300 to 500 on hand ready to mail.

We guarantee safe delivery to any State, Continental Island, or European Country. Our Circular will interest you; it's free.

Address all orders to

Quirin-the-Queen-Breeder
PARKERTOWN, OHIO.

(The above ad. will appear twice per month only.) 16E13t

Please mention Bee Journal when writing

CARTONS FOR HONEY Wanted, to introduce the best, most practical, lowest-price Carton for honey, all things considered; costs nothing. We have wholesaled honey in this city for 30 years. We have seen no honey-carton equal to this. Send us five two-cent stamps, and we will send you sample, together with explanation, and some practical suggestions regarding marketing honey to best advantage; also live poultry. We originated and introduced the now popular one-pound section. Established in 1870.

H. R. WRIGHT, Wholesale Commission,
PROMPTNESS A SPECIALTY. ALBANY, N. Y.
30E3t Please mention the Bee Journal.

FROM MANY FIELDS

Good Flow—Not Swarming Much.

We are having a very good honey-flow. I have two supers about full on most of my colonies, and they are hustling in the honey at a good pace, but are not swarming much.

Otero Co., Colo., July 17. W. J. MARTIN.

An Old Bee-Keeper.

I was born Oct. 20, 1833. I began to keep bees when I was 20 years old. I have seen queens go out and mate with drones two days following, and had drone-laying worker. I have bought Italian queens of Baldridge, R. P. Kidder, Quinby, L. L. Langstroth, Flanders, and Aaron Benedict; and I have reared scores of queens, but not any to sell. E. TUCKER.

Genesee Co., N. Y., July 20.

Sweet Clover Honey—Foul Brood.

Yesterday I took off a few sections of my first sweet clover honey. It tastes simply delicious—beats white clover "all holler." There are also some linden trees in the neighborhood and some catnip plants, and the combination of the three makes a honey which is—well, you ought to taste some of it; it is very thick, too. I probably won't get very



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The AMERICAN INSTITUTE of PHRENOLOGY
Incorporated 1860. 99th Session opens Sept. 2d.
Subjects: Phrenology, the Art of Character
Reading; Anatomy, Physiology, Physiognomy,
Hereditry, Hygiene, etc. Address: 24 E. 2nd St.,
New York, care of FOWLER & WELLS Co.
24Etf Please mention the Bee Journal.

FENCE! STRONGEST MADE. Bull Strong, Chicken-Tight. Sold to the Farmer at Wholesale Prices. Fully Warranted. Catalog Free. COILED SPRING FENCE CO. Box 89 Winchester, Indiana, U. S. A.

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WARM YOUR HOUSE

at low cost by using the **LEADER Steel Furnace**. Saves coal, time, trouble. Send for free booklet No. 17 **How to Warm and Ventilate** Co., Chicago, Ill.

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\$5 TO START YOU IN BUSINESS

We will present you with the first \$5 you take in to start you in a good paying business. Send 10 cents for full line of samples and directions how to begin.

DRAPER PUBLISHING CO., Chicago, Ills.

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Thousands of Hives - Millions of Sections

Ready for Prompt Shipment.

We are not selling goods on NAME ONLY, but on their quality. In addition to the many car-loads we are shipping to all parts of the United States, we have just made one shipment of five car-loads to England.

G. B. LEWIS CO., Watertown, Wisconsin, U. S. A.

Natick House, LOS ANGELES.

Cor. First and Main Sts.,

HART BROS., Proprietors.

"The Popular Hotel," remodeled; 75 additional rooms, all newly furnished. Everything strictly first-class. Elevators. American plan, \$1.25 to \$3.00; latter includes suites with private baths. European plan, 50 cents up.

HEADQUARTERS of the NATIONAL BEE-KEEPERS' ASSOCIATION during the Convention, Aug. 18, 19 and 20.

Please mention Bee Journal when writing.

SWEET CLOVER

And Several Other Clover Seeds.

We have made arrangements so that we can furnish Seed of several of the Clovers by freight or express, at the following prices, cash with the order:

	5lb	10lb	25lb	50lb
Sweet Clover (white)....	\$.75	\$1.40	\$3.25	\$6.00
Sweet Clover (yellow)....	.90	1.70	4.00	7.50
Alsike Clover	1.00	1.80	4.25	8.00
White Clover	1.50	2.80	6.50	12.50
Alfalfa Clover	1.00	1.80	4.25	8.00

Prices subject to market changes.

Single pound 5 cents more than the 5-pound rate, and 10 cents extra for postage and sack.

Add 25 cents to your order, for cartage, if wanted by freight, or 10 cents per pound if wanted by mail.

GEORGE W. YORK & CO.

144 & 146 Erie Street, CHICAGO, ILL.

Italian Queens, Bees and Nuclei.



We have a strain of bees bred specially for honey-gathering and longevity, at the following prices:

One Untested Queen.....	\$.60
One Tested Queen80
One Select Tested Queen. 1.00	
One Breeder Queen	1.50
One - Comb Nucleus (no Queen).....	1.00

These prices are for the remainder of the season. Queens sent by return mail.

Safe arrival guaranteed. For price on Doz. lots send for Catalog. J. L. STRONG

1641 204 E. Logan St., CLARINDA, IOWA.

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BEE-KEEPERS' SPECIAL TOURIST CARS VIA SANTA FE ROUTE TO LOS ANGELES

LEAVE CHICAGO

First Special Car via Grand Canyon of Arizona,
Wednesday, Aug. 12th, 10 p.m.
Arrive Grand Canyon
Saturday, Aug. 15, 5:30 p.m.
(Spend Sunday at Canyon.)
Leave Canyon Monday, Aug. 17, 9 a.m.
Arrive Los Angeles Tuesday, 18, 8 a.m.

Second
.... Special Car
**Friday,
August 14th,
10 p.m.**
Arrive Los Angeles
Tuesday, August 18th,
8 a.m.

**Round Trip—Los Angeles, August 1st to 14th, Good until October 15th,
San Francisco, A Choice of Routes Returning.... \$50.00.**
Sleeper—Double Berth, \$6.00.
Additional for Grand Canyon Side-Trip, \$6.50. Sleeper, \$2.00.

J. M. CONNELL,
Gen. Agt.

SANTA FE

109 ADAMS ST.
CHICAGO.

Marshfield Manufacturing Company.

Our specialty is making SECTIONS, and they are the best in the market. Wisconsin BASSWOOD is the right kind for them. We have a full line of BEE-SUPPLIES. Write for free illustrated catalog and price-list.

Marshfield Manufacturing Company, Marshfield, Wis.

6A26t

Please mention Bee Journal when writing.

much surplus honey this year, as I increased from 4 colonies to 16, and so my colonies are not very strong.

The other day I discovered foul brood in one of my colonies. It is not a very bad case as yet, and I hope it won't spread to the other colonies. I shall treat the colony next week. I also wrote to Mr. Smith, the foul brood inspector, to take a look at my bees when he comes up this way. CHAS. B. ACHARD.

Dupage Co., Ill., July 25.

Forced Swarms—Finding Queens.

I have been reading about forced swarming, by C. Davenport, on page 453, so I thought to give my experience.

I had 16 colonies, spring count, and not wanting to watch for swarms I undertook the shaking process. I waited till I found queen-cells started, then shook them on old combs in 8-frame hives. All but one of them stayed and went to work at once. The one that left I shook into a 10-frame hive on full sheets of foundation. Now, probably the reason that Mr. Davenport's bees left was they were shaken on foundation.

I wish to know if there is any sure way to find a queen. I have one colony that I want to change the queen. So I proceeded on a tour of inspection, took frames all out and looked them all over, and put them in another hive. No queen found. Well, not to be beaten, I went over them again very carefully. Still no queen. So I thought I could catch her by getting a queen-excluder, and proceeded to strain the bees through the excluder. Still my lady was invisible. Well, I put my thinking-cap on and thought a while.



PAGE

You'll Never Regret

buying The PAGE for your fall fencing. It lasts. PAGE WOVEN WIRE FENCE CO., Adrian, Mich. Please mention Bee Journal when writing.



SHEEP MONEY IS GOOD MONEY and easy to make if you work for us. We will start you in business and furnish the capital. Work light and easy. Send 10 cents for full line of samples and particulars. DRAPER PUBLISHING CO., Chicago, Ills.

Sections, Shipping-Cases, Honey-Cans,

And everything necessary for the bee-keeper. Prompt shipping. FINE ITALIAN QUEENS. Catalog free.

C. M. SCOTT & CO.

1004 E. Washington St., INDIANAPOLIS, IND.

The Emerson Binder

This Emerson stiff-board Binder with cloth back for the American Bee Journal we mail for but 60 cents; or we will send it with the Bee Journal for one year—both for only \$1.40. It is a fine thing to preserve the copies of the Journal as fast as they are received. If you have this "Emerson" no further binding is necessary.

GEORGE W. YORK & CO.,

144 & 146 Erie Street, CHICAGO ILL.

Please mention Bee Journal when writing Advertisers.

I got an Alley queen-trap, fixed it on the entrance to another hive, drove the bees all through the trap into another hive, but the queen was not to be found. So I put them all back into their own hive, put them back on the old stand, and 3 or 4 days later found fresh eggs. So I suppose she has resumed business on the old stand. FRED TYLER.
Mason Co., Ill.

No Nectar in White Clover.

Mr. France must hustle, or white clover must secrete there. Here, with the greatest crop of white clover, bees do not touch it. Basswood is nothing. Alsike is all I received my honey from, till lately, sweet clover is coming on. The bees got just enough every day to build up well. The greatest year for swarming and the most runaway swarms in the history of the country. N. A. KLICK.
Stephenson Co., Ill., July 16.

Producer's Name on Honey.

I wish a word or two about the producer's name on honey-packages. I hold that the producer has a perfect right to put his name and address on every package of honey sent out by him. On page 447 W. W. McNeal says: "The producer who contends he is robbed of his rights when he is denied the privilege of ornamenting small honey-packages with his name and address, when such are not to

Italian Queens, by Mail.

Golden and Honey Queens.

	July and August.	1	6	12
Honey Queens (Untested)...	\$.75	\$4.00	\$7.00	
" (Tested)....	1.25	7.00	13.00	
Golden " (Untested)...	.75	4.00	7.00	
" (Tested)....	1.25	7.00	13.00	
2-frame Nucleus (no queen) 2.00		11.00	21.00	
Breeders, \$3.00 each, after June 1.				

Add price of any Queen wanted with Nucleus. Our bees are shipped in light shipping-cases. Purchaser pays express on Nuclei.
Safe arrival guaranteed of all stock sent out.

BATAVIA, ILL., Aug. 21, 1901.

Dear Sir:—I thought I would let you know as to results of the nucleus sent me. They were placed in 10-frame hives and now they are in fine condition. From one I removed 24 pounds of honey and had to give 6 of them more room, as they were hanging out. They have more than reached my expectations.

Yours respectfully, E. K. MEREDITH.

DAVENPORT, IOWA, Dec. 31, 1901.

Your queens are fully up to standard. The honey queen that you sent my brother takes the lead. She had a rousing colony when put up for winter. The goldens can be handled without smoke or veil. Very truly yours,
JOHN THORMING.

Notice.—No tested stock sent out before May 15. Send money by P. O. Money Order or Express Order. D. J. BLOCHER.
17Att PEARL CITY, ILL.

Hives, Sections, Foundation,
etc. We can save you money. Send list of goods wanted and let us quote you prices. ROOT'S GOODS ONLY. Send for Catalog.
M. H. HUNT & SON, Bell Branch, Mich.



DAIRYMEN ARE DELIGHTED
to meet those who work for us. Cow keepers always have money. We start you in business. You make large profits. Easy work. We furnish capital. Send 10 cents for full line of samples and particulars.
DRAPER PUBLISHING CO., Chicago, Ills.

Business Queens.

Bred from best Italian honey-gathering stock, and reared in FULL COLONIES by best known methods. Guaranteed to be good Queens and free from disease. Untested, 75c each; 6, \$4.00. Tested, \$1.25 each.

CHAS. B. ALLEN,
8Att Central Square, Oswego Co., N. Y.

REMARKABLE

The Universal Satisfaction our QUEENS do give...

I was showing my father yesterday how my bees, which I bought from you, were out-working everything in my apiary. Send me 4 Buckeye Red Clover and 2 Muth Strain Golden Italians. I will order more after next extracting.
STERLING, GA., June 29, 1903.
THOS. H. KINCADE.

Buckeye Strain Red Clover Queens. They roll in honey, while the ordinary starve. **Muth Strain Golden Italians—NONE SUPERIOR. Carniolans—NONE BETTER.**

Untested, 75c each; 6 for \$ 4.00 | Tested, \$1.50 each; 6 for \$ 7.25
Select Untested, \$1.00 each; 6 for 5.00 | Select Tested, \$2.50 each; 6 for 12.00
Best money can buy, \$3.50 each.

Send for Catalog of BEE-SUPPLIES; complete line at manufacturer's prices.

The Fred W. Muth Co.,
Front and Walnut, CINCINNATI, OHIO.

ADEL QUEENS.

One Queen \$1.00 | Have reduced Improved Queen-Rearing
Three Queens 2.75 | price of
Six Queens 5.00 | to 50 cents per copy. Book sent free to all who
Twelve Queens 9.00 | purchase three or more Queens.

Send for 25-page Catalog.

30Att

HENRY ALLEY, Wenham, Mass.

28 cents Cash
paid for Beeswax.

This is a good time to send in your Beeswax. We are paying 28 cents a pound—CASH—for best yellow, upon its receipt, or 30 cents in trade. Impure wax not taken at any price.

Address as follows, very plainly,

GEORGE W. YORK & CO., 144 & 146 Erie St., Chicago, Ill.

We are the Largest Manufacturers of Bee-Keepers' Supplies in the Northwest

Send for catalog.



Minneapolis, Minn.

We have the Best Goods, Lowest Prices, and Best Shipping Facilities.

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Et

Dittmer's Foundation!

Retail and Wholesale.

This foundation is made by a process that produces the superior of any. It is the cleanest and purest. It has the brightest color and sweetest odor. It is the most transparent, because it has the thinnest base. It is tough and clear as crystal, and gives more sheets to the pound than any other make.

Working wax into Foundation for Cash a Specialty. Beeswax always wanted at highest price.

Catalog giving FULL LINE OF SUPPLIES with prices and samples, FREE on application.
E. GRAINGER & Co., Toronto, Ont., Sole Agents for Canada. GUS, DITTMER, Augusta, Wis.

Queens Now Ready to Supply by Return Mail

Stock which cannot be excelled. Each variety bred in separate apiaries, from selected mothers; have proven their qualities as great honey-gatherers.

Golden Italians Have no superior, and few equals. Untested, 75 cents; 6 for \$4.00.

Red Clover Queens, which left all records behind in honey-gathering. Untested, \$1.00; 6 for \$5.00.

Carniolans —They are so highly recommended, being more gentle than all others. Untested, \$1.00.

ROOT'S GOODS AT ROOT'S FACTORY PRICES.

C. H. W. WEBER, 2146-2148 Central Avenue, CINCINNATI, OHIO.
(Successor to Chas. F. Muth and A. Muth.)

be delivered to the consumer by himself, is laboring under a mistaken idea." I think Mr. McNeal, and Mr. York, and Mr. Anybody Else are wrong on that score. Did any of you ever know of a grocer who objected to the name and address of the manufacturer or producer of canned goods being on every can. Is not every barrel and can of syrup marked in this way? Is not all toilet soap marked with the name and address of the producer? Does not Mr. York advertise Root's goods? Why does he not advertise York's goods? Are they not as much his as the honey he buys? I sell all my honey direct to the consumer myself, with name and address on every package, and guarantee it to be O. K. in every respect.

I have 26 colonies of bees and run for both comb and extracted honey, and could sell a great deal more than I can produce. I got 10 cents per pound straight for it. Now, Mr. York, don't ask why I don't buy some of "York's Honey" and sell it. I expect it would have your name and address on it. But that is not the reason I don't buy. First, you don't have the same flavor and color of honey I produce. You know we Southern folks have foolish ideas. I can't sell light colored honey at any price, and I can't buy and pay freight charges, then sell for less than 15 cents per pound, which is out of the question here.

I hope Messrs. York and McNeal will not

Long Tongues Valuable South as well as North.

How Moore's strain of Italians roll in the honey down in Texas.

HUTTO, TEX., Nov. 19, 1902.
J. P. MOORE.—Dear Sir:—I wish to write you in regard to queens purchased of you. I could have written sooner, but I wanted to test them thoroughly and see if they had those remarkable qualities of a three-banded Italian bee. I must confess to you I am more surprised every day as I watch them. They simply "roll the honey in." It seems that they get honey where others are idle or trying to rob; and for gentleness of handling, I have never seen the like. Friend E. R. Root was right when he said your bees have the longest tongues; for they get honey where others fail. I will express my thanks for such queens. I am more than pleased. I will stock my out-apiaries next spring with your queens.

Yours truly, HENRY SCHMIDT.

The above is pretty strong evidence that red clover is not the only plant which requires long-tongued bees to secure the greatest quantity of nectar.

Daughters of my 23-100 breeder, the prize-winner, and other choice breeders: Untested, 75 cents each; six, \$4.00; dozen, \$7.50. Select untested, \$1.00 each; six, \$5.00; dozen, \$9.00. Safe arrival and satisfaction guaranteed. Circular free. I am filling all orders by return mail, and shall probably be able to do so till the close of the season.

J. P. Moore, L. Box 1, Morgan, Ky.
31Atf Pendleton Co.

Please mention Bee Journal
when writing advertisers.

take any exceptions to what I have said. It is only my opinion on the subject.

My 26 colonies of bees are all in 8-frame dovetail hives, painted white. It was so cold in the spring we didn't get any honey, but we hope to get some from fall flowers.

Henry Co., Tenn., July 20. J. R. ADEN.

[It is all right to put your name on the packages of honey when you are retailing it yourself direct to the consumers. But when you sell it in bulk to a commission man or dealer, it is better to omit the producer's name.]

We have no quarrel with any one who insists on putting his name on his honey when he sells it. Only he can't sell it to us. If any body else wants to buy it, that's all right. We have worked up a demand in Chicago for "York's Honey," and not for Aden's honey. We have spent a great deal of money in advertising "York's Honey" here, and have pushed it in many expensive ways that we have never written about. After doing all that, we are not quite such a whopping fool as to allow some one else's name to appear on any honey that we put on the retail market here among grocers.

We are not talking about extracted honey sold in bulk, such as 60-pound cans of it. We are speaking of section comb honey, and of extracted honey that we bottle and then



A STANDARD-BRED QUEEN-BEE FREE



To Our Regular Paid-in-Advance Subscribers.

We have arranged with several of the best queen-breeders to supply us during 1903 with **The Very Best Untested Italian Queens** that they can possibly rear—well worth \$1.00 each. We want every one of our present regular subscribers to have at least one of these Queens. And we propose to make it easy for you to get one or more of them.

A QUEEN FREE FOR SENDING ONE NEW SUBSCRIBER.

In the first place, you must be a regular subscriber to the American Bee Journal, and your own subscription **must be paid at least 3 months in advance**. If it is not already paid up, you can send in the necessary amount to make it so when you order one of these fine Queens.

Send us \$1.00 and the name (not your own) and address of **One NEW** subscriber for the American Bee Journal, and we will mail you one of the Queens free as a premium.

Now, go out among your bee-keeping neighbors and friends and invite them to subscribe for the old American Bee Journal. If you want some to show as samples, we will mail you, for the asking, as many copies of the American Bee Journal as you can use.

Should there be no other bee-keepers near you, and you desire one of these fine Queens any way, send us \$1.50 and we will credit your subscription for one year and also mail you a Queen. Of course, it is understood that the amount sent will pay your subscription at least one year in advance of the present time. So, if your subscription is in arrears, be sure to send enough more than the \$1.50 to pay all that is past due also.

We prefer to use all of these Queens as premiums for getting new subscribers. But if any one wishes to purchase them aside from the Bee Journal subscription, the prices are as follows:

One Queen, 75c.; 3 Queens, \$2.10; 6 Queens for \$4.00.

We are filling orders almost by return mail.

Now for the new subscribers that you will send us—and then the Queens that we will send you! Address,

GEORGE W. YORK & CO., 144-146 E. ERIE ST., CHICAGO, ILL.



Please Mention the Bee Journal when writing Advertisers.

label. We simply know we are right in our position in this matter so far as we are concerned. Others can do as they please with the honey they produce or handle. But any honey we put on the retail market must be "York's Honey," as we propose to stand back of every pound we put out.—EDITOR.]

Beedom Boiled Down

Getting Swarms Down from Tree-Tops.

Elsewhere I speak of the fact that we have been shinning up trees to get swarms. You may wonder why we did not pursue the good old orthodox plan of having the queen's wings clipped, or why the colonies had not been shaken, to stop all of this unnecessary climbing and chasing. In the first place, some of our customers object to having their nice queens clipped—don't like the looks of them. In the second place, the swarming weather caught us by surprise. We had about given up having any honey-flow, and the problem had been to keep our bees from starving. But the season opened up and the bees swarmed, and how should we get them out of our tall basswoods? No way under the sun but to climb after them.

We used a jack-knife to cut off the limb on which the swarm hung, then by carefully dodging among the limbs we climbed down to the ground as best we could, handing the swarm to an attendant as soon as he could be reached. But the jack-knife in cutting jarred

If you want the Bee-Book

That covers the whole Apicultural Field more completely than any other published, send \$1.20 to

Prof. A. J. Cook, Claremont, Cal.,

FOR HIS

"Bee-Keeper's Guide."

Liberal Discounts to the Trade.

Please mention Bee Journal when writing.

Ready to fill orders for **ITALIAN QUEENS** from stock that for hardiness and good working-qualities is second to none. M.O. Office, Cleveland, Tenn.

CHESELEY PRESSWOOD,

31A4t McDONALD, Bradley Co., TENN.

Please mention Bee Journal when writing

BINGHAM'S PATENT
25 years the best.
Send for Circular. **Smokers**
25A4t T. F. BINGHAM, Farwell, Mich.

Mount Union College

Open to both sexes from the beginning. Founded in 1846. Highest grade scholarship. First-class reputation. 25 instructors. Alumni and students occupying highest positions in Church and State. Expenses lower than other colleges of equal grade. Any young person with tact and energy can have an education. We invite correspondence. Send for catalog.

MOUNT UNION COLLEGE,
Alliance, Ohio.

Please mention Bee Journal when writing



FREE as a Premium

A Foster Stylographic PEN....

This pen consists of a **hard rubber holder**, tapering to a **round point**, and writes as smoothly as a lead-pencil. The **point and needle** of the pen are made of **platina**, alloyed with **iridium**—substances of great durability which are not affected by the action of any kind of ink.

They hold sufficient ink to write 10,000 words, and **do not leak or blot.**

As they make a line of **uniform width** at all times they are **unequaled for ruling purposes.**

Pens are furnished in neat paper boxes. Each pen is accompanied with full directions, filler and cleaner.

BEST MANIFOLDING PEN ON THE MARKET.

19,000 Postmasters use this kind of a pen. The Editor of the American Bee Journal uses the "Foster." You should have one also.

How to Get a "Foster" FREE.

Send **TWO NEW SUBSCRIBERS** to the American Bee Journal for one year, with \$2.00; or send \$1.90 for the Pen and your own subscription to the American Bee Journal for one year; or, for \$1.00 we will mail the pen alone. Address,

(Exact size of the Pen.)

GEORGE W. YORK & CO.

144 & 146 Erie St., Chicago, Ill.

Do It Quick!

\$2.50 for

\$1.00

Sample Free

The Modern Farmer and Busy Bee, \$50c;

The Western Fruit-Grower, 50c;

The American Poultry Journal, 50c;

Gleanings in Bee-Culture, \$1.00;

ALL FOR \$1.00

The Modern Farmer
St. Joseph, Mo.

The Rural Californian

Tells all about Bees in California. The yields and Price of Honey; the Pasturage and Nectar-Producing Plants; the Bee-Ranches and how they are conducted. In fact the entire field is fully covered by an expert bee-man. Besides this the paper also tells you all about California Agriculture and Horticulture. \$1.00 per year; 6 months, 50 cents. Sample copies, 10 cents.

THE RURAL CALIFORNIAN,
218 North Main Street, - LOS ANGELES, CAL.



\$300,000,000.00 A YEAR
and you may have part of it if you work for us. Uncle Sam's poultry product pays that sum. Send 10c for samples and particulars. We furnish capital to start you in business. **Draper Publishing Co., Chicago, Ill.**

the limb. I finally took down a big pair of pruning-shears, two big potato-sacks, and some stout string, supplying the boy who did the "shinning" with all these before he went up the tree. The shears were handy for clearing out a space through which to let the bees down. After reaching the swarm, the boy would proceed to slide the bag around the limb, and with the pruning-shears clip it off. He could then with his rope let down bees, limb, bag, and all, or he could climb down without danger of jarring the bees off, or without fear of being stung.

In descending through the tree, holding a limb from which a big swarm is hanging, one is liable to bump it against the foliage, dislodging many of the bees, filling the air full of them. These will in all probability alight on the limb nearest where they were first clustered, with the result that another climbing is necessary to get all the bees. The coffee-sack or bag saves all this trouble.

The pruning-shears are a vast improvement over the jack-knife. When the bees swarmed we had to hack away with this ever-present and usually convenient tool, but which, on occasions of this kind, was any thing but convenient or suitable.

I have been wondering if it would not be a good thing for those who do not clip the wings of their queens to have a special belt gotten up in which could be fastened a small short saw, a pair of strong pruning-shears, a smoker, a rope, and perhaps some other tool that might be necessary to complete the equipment.

The majority of bee-keepers believe, and believe rightly, that the *only way* to handle swarms is to do so by the clipped-wing plan. But something will happen, on account of which they will not get at the job, or perchance some queens will be skipped. In either case a swarm or two is liable to get to the top of a tree, and nothing but climbing after it will bring it to the earth again. I have seen the day many and many a time when an outfit of tools, with a pair of climbers already hitched to a belt, and ready to strap on, would be worth a good deal. There is nothing like being prepared for an emergency; and when one is in a hurry, the more convenient and handy his tools are, the more effective will be the work.—Editorial in Gleanings in Bee-Culture.

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Forty Years Among the Bees, by Dr. C. C. Miller.—This book contains 328 pages, is bound in handsome cloth, with gold letters and design; it is printed on best book-paper, and illustrated with 112 beautiful original half-tone pictures, taken by Dr. Miller himself. It is unique in this regard. The first few pages are devoted to an interesting biographical sketch of Dr. Miller, telling how he happened to get into bee-keeping. Seventeen years ago he wrote a small book, called "A Year Among the Bees," but that little work has been out of print for a number of years. While some of the matter used in the former book is found in the new one, it all reads like a good new story of successful bee-keeping by one of the masters, and shows in minutest detail just how Dr. Miller does things with bees. Price, \$1.00.

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ABC of Bee-Culture, by A. I. & E. R. Root.—A cyclopedia of over 500 pages, describing everything pertaining to the care of the honey-bees. Contains about 400 engravings. It was written especially for beginners. Bound in cloth. Price, \$1.20.

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Advanced Bee-Culture, Its Methods and Management, by W. Z. Hutchinson.—The author of this work is a practical and entertaining writer. You should read his book; 90 pages; bound in paper, and illustrated. Price, 50 cents.

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called "Bees and Honey." 100-page pamphlet. Price, 25 cents.

Apiary Register, by Thomas G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, \$1.00.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cents.

Winter Problem in Bee-Keeping, by G. R. Pierce.—Result of 25 years' experience. Price, 30 cents.

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. 10 cts.

Foul Brood, by A. R. Kohnke.—Origin, Development and Cure. Price, 10 cents.

Close Saturdays a 1 p.m.—Our customers and friends will kindly remember that beginning with July 1, for three months we will close our office and bee-supply store at 1 p.m. on Saturdays. This is our usual custom. Nearly all other firms here begin the Saturday afternoon closing with May 1st, but we keep open two months later on account of the local bee-keepers who find it more convenient to call Saturday afternoons for bee-supplies.

National Convention Notice.

The 34th Annual Convention of the National Bee-Keepers' Association will be held in Los Angeles, Calif., on August 18, 19, and 20, 1903, in Blanchard's Hall, at 235 S. Broadway. The headquarters of the Association during the convention will be at the Natick House, corner of First and Main Streets.

It is expected that this will be the largest and best convention ever held by the bee-keepers of America. Every one interested in the production of honey should be present, if at all possible. Besides the question-box, which will be one of the special features of the program, the following subjects will be discussed in papers by the prominent bee-keepers mentioned. Afterward a free and full discussion will be had by all in attendance who wish to participate. The subjects and men to introduce them are as follows:

"Honey Exchanges and Co-operation Among Bee-Keepers" by Prof. A. J. Cook, Claremont, Calif.

"How to Make Money Producing Extracted Honey," by E. F. McIntyre, Seaside, Calif. Response by E. S. Lovesy, Salt Lake City, Utah.

"The Production and Sale of Chunk Honey," by Homer H. Hyde, Floresville, Texas. Response by C. P. Dadant, Hamilton, Ill.

"The Eradication of Foul Brood," by N. E. France, Plattville, Wis.

"Reminiscences of Bee-Keeping and Bee-Keepers in the Early Days," by A. I. Root.

There will be reports by the officers, which include Pres. Hutchinson, General Manager France, and Secretary York.

The California bee-keepers are planning to give all in attendance one of the grandest receptions imaginable on the first evening, Tuesday, Aug. 18. No one will want to miss this feature of the convention.

It is an opportunity of a lifetime to take the trip to California, as all convention members can avail themselves of the low railroad rates, as it comes at the time of the Grand Army meeting in San Francisco, and the same rates apply to Los Angeles.

For further information or particulars that may be desired, address the Secretary, 144 E. Erie St., Chicago, Ill.

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HONEY AND BEESWAX

MARKET QUOTATIONS

CHICAGO, July 20.—Some consignments of the crop of 1903 are offered on this market, the comb in the majority of cases No. 1 to fancy, and the quality of the very best. It is many years since this neighborhood yielded in quality and quantity as now. Demand has not come for it at the present moment, but will within a short time, as it is being told that an abundant harvest of fancy honey is upon us. Prices asked are from 13@15c per pound. Extracted sells slowly at 6@7c for fancy white, 5@6c for amber. Beeswax, 30c per pound.

R. A. BURNETT & CO.

KANSAS CITY, July 28.—Some new comb honey in market, but on account of hot weather the demand is not heavy, but will be getting better every day. Fancy white comb, 24 sections, per case, \$3.50; No. 1, white and amber, 24 sections, per case, \$3.25; No. 2, white and amber, 24 sections, per case, \$3.00. Extracted, white, per pound, 6@6½c; amber, 5½c. Beeswax, good demand, 25@30c.

C. C. CLEMONS & CO.

ALBANY, N. Y., July 18.—We are receiving some shipments of new comb honey, mostly from the South; the demand light as yet; we are holding at 15@16c. Extracted slow at 6@7c. The crop of honey in this vicinity is very light, and we shall have to depend upon other sections more than ever for our supply of honey. Beeswax, 30@32c.

H. R. WRIGHT.

CINCINNATI, June 1.—Very little change in market from last report. We quote amber extracted grades at 5½@6½c in barrels; white clover, 8@9c; supply equal to demand. Comb honey, 15@16c for fancy. Beeswax, 30c.

THE FRED W. MUTH CO

NEW YORK, July 8.—Some new crop comb honey now arriving from Florida and the South, and fancy stock is in fair demand at 14c per pound, and 12@13c for No. 1, with no demand whatever for dark grades.

The market on extracted honey is in a very unsettled condition, with prices ranging from 5@5½c for light amber, 5½@6½c for white, and the common Southern at from 50@55c per gallon. Beeswax steady at from 30@31c.

HILDRETH & SEGELKEN.

CINCINNATI, July 20.—The demand for honey continues slow. New extracted and comb begins to be offered largely. Prices show a downward tendency. Extracted sells at the following prices: Amber in barrels, 5@5½c; alfalfa, 6½c; white clover, 7@7½c. Comb honey, fancy water-white, will bring 14@15c; no demand for lower grades. Beeswax, 27@30c.

C. H. W. WEBER.

SAN FRANCISCO, July 22.—White comb honey, 11½@13½c; amber, 8@10c. Extracted, white, 5½@5 c; light amber, 4½@5c; amber, 4½@4½c; dark, 3½@4½c. Beeswax, good to choice, light, 27½@29c; dark, 25@26c.

This season's crop is not only unusually late, but is proving much lighter than was generally expected. While the market is unfavorable to buyers, the demand at extreme current rates is not brisk and is mainly on local account.

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